

product of formula (57)). Applicants therefore request its consideration along with all the other benzotriazoles of formula 1.

Claims 16, 17 and 26 have been amended by replacement. No other claims have been amended. No claims have been added.

Another version of the amended claims, showing the changes relative to the previous version, is appended. Additions are shown by underlining. Deletions are shown by strikethrough rather than bracketing since the claims may contain bracketing that is to remain. No new matter has been added.

Claim 17 is objected to under 37 CFR 1.75(c), the examiner correctly asserting that it fails to further limit claim 16 because  $R_2$  is floating instead of fixed and  $R_2$  (not  $R_1$ ) is  $-SO_3M$ . Responsive thereto applicants "fix"  $R_2$  in the ortho-position and expand the definition of  $R_2$  when  $m = 1$  to include  $-SO_3M$ . The examples (formula (53) on page 9 in particular) support the changes. Hence no new matter has been added.

Claims 16, 20-26 and 29 are rejected under 35 U.S.C. § 112, second paragraph, as indefinite. Responsive thereto in claim 16, applicants delete " , preferably Cl" from the definition of  $R_3$ . Also, in formula (1a)  $SO_3$  is replaced by  $SO_3M$  and M has been defined according to page 16, 5 lines from the end. Additionally, in claim 26, applicants delete "cosmetic". No reason has been given for rejecting claim 29, but this is moot as claim 29 has been cancelled.

It is respectfully submitted that all the claims submitted for reconsideration are in good formal order. Reconsideration and withdrawal of the rejection of claims 16 and 20-26 under 35 U.S.C. § 112, second paragraph is therefore solicited.

Claims 16, 17, 20, 21, 24, 26 and 29 are rejected under 35 U.S.C. § 102(a) as being anticipated by Luther (commonly assigned US Patent 6,090,370).

Luther et al discloses selected benzotriazole derivatives that are useful for the UV protection of human hair.

The reference also discloses cosmetic compositions comprising these benzotriazole derivatives. These compositions may further comprise active ingredients such as tocopherol.

Claims 16, 20-23, 25, 26 and 29 are rejected under 35 U.S.C. § 102(b) as being anticipated by Dümle et al. (GB 2,286,774).

Dümle et al. disclose certain sunscreen compositions comprising micronized, insoluble organic UV absorbers, i.e. the UV absorber particles have a mean particle size of 0.05 to 1.5 µm. The reference also discloses cosmetic compositions comprising these micronized, insoluble organic UV absorber derivatives.

Claims 16, 20-22, 24, 25 and 29 are also rejected under 35 U.S.C. § 102(b) as being anticipated by Strobel (US Patent 3,983,132).

Strobel discloses certain stabilization compositions particularly adapted to prevent deterioration resulting from exposure to heat and light in polymeric materials, paints and dyes, which consist of a specific dodecyl isomeric mixture of a benzotriazole derivative. Strobel also discloses the method of preparing said stabilization composition and stabilized products having between about 0.05 and about 15 weight percent of said stabilization composition incorporated therein.

The reference further discloses that these UV absorbers can be used as sunscreens.

The examiner asserts that compositions taught by the 3 references are encompassed by the instant claims. However no compositions are claimed; only methods of protecting body-care and household products are claimed.

Thus the present invention relates to a very specific use of known UV absorbers: the benzotriazole and triazine compounds are used for the photolytic protection of body care products and skin care products and household cleaning and treating agents as defined in claim 16.

None of the cited references teaches or suggests this specific use. The presently claimed method is therefore new, and the § 102 rejection is therefore unwarranted.

Today's personal care products are complex and sophisticated and geared towards a knowledgeable and discerning consumer. This has resulted in two new trends in the personal care marketplace:

- Colorful products in clear or translucent bottles, and

With these new trends in the marketplace, formulators want to use broader color palettes and different fragrances, resulting in a need for improved stabilizers.

The glass and clear transparent plastic containers that are commonly used for packaging of personal care products exhibit a certain inherent UV-protection. Unfortunately, this effect is only against UV-B radiation (290-320 nm). Therefore, products contained in these transparent packages are still exposed to harmful UV-A light energy (320-400 nm).

PVC, PET and glass do not exhibit protection in the UV-A range of 320-400 nm. For sufficient and complete stabilization, the product has to be protected from both UV-B and UV-A light. Therefore, the addition of a UV-A light filter is necessary.

Without the addition of an effective UV-filter into the formulation or package, its shelf life is often strongly reduced due to detrimental photolytic effects caused by UV light. Exposing packaged products to UV light for even a few hours can result in changes in appearance, stability, odor and performance.

The UV absorbers of the present invention show a strong performance over the entire ultraviolet range.

Incorporating the UV-filters used in the present invention into a formulation increases the product's stability over the whole UV-A and UV-B range. This added protection in the UV-A range is extremely important to formulators because it can increase the color stability. But, just as important, broad-band protection gives the formulator more options, allowing them to expand their color palette, and to utilize colors which are susceptible to degradation by UV-A radiation.

The UV filters used in the present invention exhibit the following properties:

- High efficacy due to broad-band performance, fully covering UV-A and UV-B light;
- High photostability for long-term protection of products without discoloring ("non-yellowing").

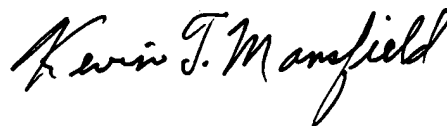
This ability to provide long-term protection to products is not taught by any of the cited references.

Reconsideration and withdrawal of all grounds of rejection of the claims is respectfully solicited in light of the remarks *supra*.

Since there are no other grounds of objection or rejection, passage of this application to issue with claims 16-18 and 20-26 is earnestly solicited.

Applicants submit that the present application is in condition for allowance. In the event that minor amendments will further prosecution, Applicants request that the examiner contact the undersigned representative.

Respectfully submitted,



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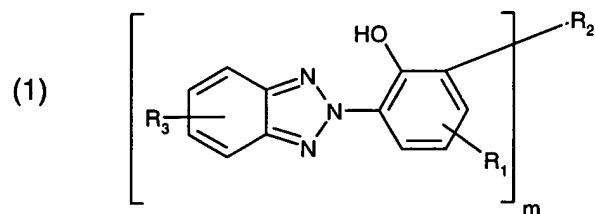
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Enclosure: Abstract

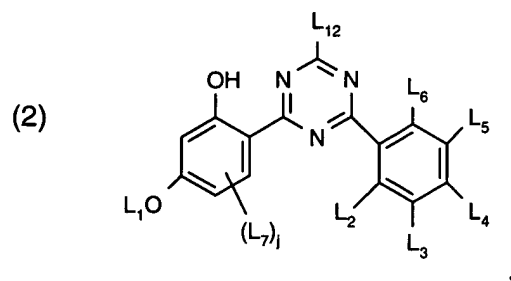
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APPENDIX: Marked up version of amended claims 16, 17 and 26.

16. (amended) A method for protecting body-care and household products from photolytic degradation which comprises incorporating into a body care or household product a benzotriazole of formula

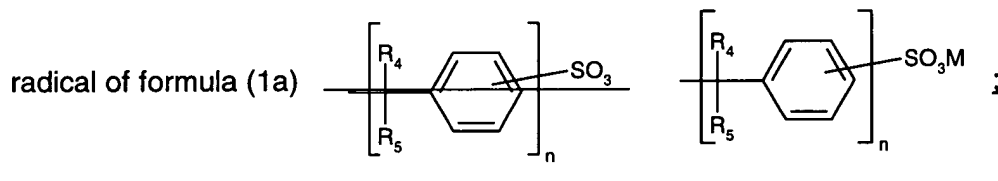


and/or a triazine compound of formula



wherein

R<sub>1</sub> is C<sub>1</sub>-C<sub>12</sub>alkyl; C<sub>1</sub>-C<sub>5</sub>alkoxy; C<sub>1</sub>-C<sub>5</sub>alkoxycarbonyl; C<sub>5</sub>-C<sub>7</sub>cycloalkyl; C<sub>6</sub>-C<sub>10</sub>aryl; aralkyl; -SO<sub>3</sub>M; a



M is alkali or ammonium;

R<sub>3</sub> is hydrogen; C<sub>1</sub>-C<sub>5</sub>alkyl; C<sub>1</sub>-C<sub>5</sub>alkoxy; halogen, preferably Cl; or hydroxy;

R<sub>4</sub> and R<sub>5</sub> are each independently of the other hydrogen; or C<sub>1</sub>-C<sub>5</sub>alkyl;

m is 1 or 2;

n is 0 or 1;

if m = 1,

R<sub>2</sub> is hydrogen; unsubstituted or phenyl-substituted C<sub>1</sub>-C<sub>12</sub>alkyl; C<sub>6</sub>-C<sub>10</sub>aryl; -SO<sub>3</sub>M;

if m = 2,

R<sub>2</sub> is a direct bond; -(CH<sub>2</sub>)<sub>p</sub>-; and

p is 1 to 3;

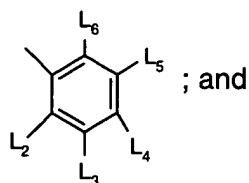
L<sub>1</sub> is C<sub>1</sub>-C<sub>22</sub>alkyl, C<sub>2</sub>-C<sub>22</sub>alkenyl or C<sub>5</sub>-C<sub>7</sub>cycloalkyl;

$L_2$  and  $L_6$  are each independently of the other H, OH, halogen,  $C_1$ - $C_{22}$ alkyl, halomethyl;

$L_3$ ,  $L_5$  and  $L_7$  are each independently of one another H, OH,  $OL_1$ , halogen,  $C_1$ - $C_{22}$ alkyl, halomethyl;

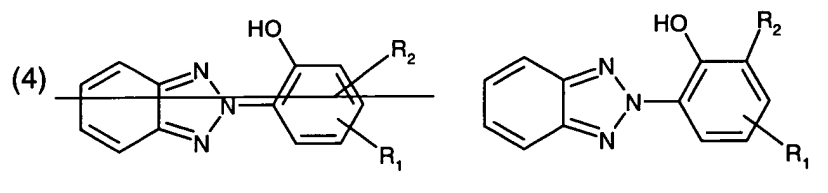
$L_4$  is H, OH,  $OL_1$ , halogen,  $C_1$ - $C_{22}$ alkyl, phenyl, halomethyl;

$L_{12}$  is  $C_1$ - $C_{22}$ alkyl, phenyl  $C_1$ - $C_5$ alkyl,  $C_5$ - $C_7$ cycloalkyl,  $OL_1$  or, ~~preferably,~~ a group of formula



j is 0, 1, 2 or 3.

17. (amended) A method according to claim 16, which comprises incorporating a benzotriazole of formula



wherein

$R_1$  is  $C_1$ - $C_5$ alkyl; and

$R_2$  is  $SO_3M$ .

26. (amended) A method according to claim 21, wherein the ~~cosmetic~~ preparations containing active ingredients are selected from hormone preparations, vitamin preparations, vegetable extract preparations and antibacterial preparations.